

An SCH laser device fabricated in the (Al,Ga,In)P system has an active region disposed within an optical guiding region. The optical guiding region is disposed between an n-doped cladding region and a p-doped cladding region. The laser device is provided with optical confinement layers, which are disposed at the interfaces between the optical guiding region and the cladding regions. The optical confinement regions produce increased confinement of the optical field, and reduce the penetration of the optical field into the cladding regions. The optical confinement region on the p-side of the device also serves as a potential barrier to the transport of electrons into the p-doped cladding region. The cladding regions have a low Al mole fraction, so that they have a direct bandgap. This prevents carrier loss by trapping in the DX level in the cladding regions. In an alternative embodiment, the cladding regions have a graded composition, with their composition at the interface with the optical confinement layers being such that the DX level in the cladding regions is degenerate with the X-conduction band in the optical confinement layers.